Gulf of Mexico Harmful Algal Bloom Bulletin

18 October 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: October 15, 2007

Conditions Report

NE Florida: A harmful algal bloom has been identified from Nassau to central Brevard County, Florida. No impacts expected in Nassau County through Sunday. Patchy very low impacts are possible today through Saturday in Duval and Northern Volusia Counties, with patchy moderate impacts possible Saturday evening through Sunday. Patchy low impacts are possible today through Sunday from St. Johns to southern Volusia County, as well as central Brevard County, with patchy high impacts possible Saturday evening through Sunday. No impacts are expected for northern Brevard County through Sunday.

SW Florida: Harmful algae has been identified in Collier County, Florida. No impacts are expected through Sunday, although patchy very low impacts are possible Friday afternoon and evening.

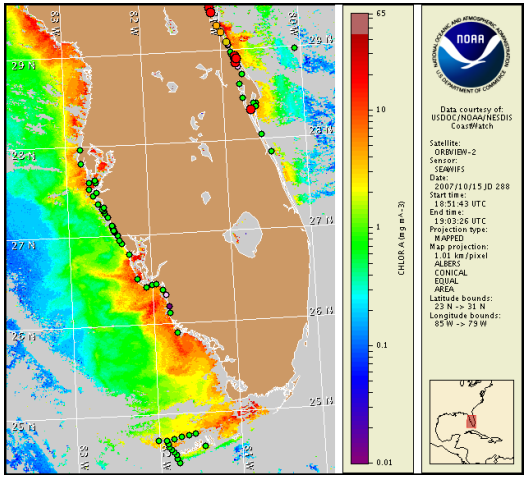
Analysis

NE Florida: The harmful algal bloom in northeast Florida persists and has moved slightly north since Monday. Medium concentrations of *Karenia brevis* were identified in Duval County (10/16, FWRI). High concentrations of *K. brevis* have been identified in St. Johns and Flagler Counties, as well as low to medium concentrations in northern Volusia County (10/16, FWRI). High concentrations of *K. brevis* were also identified in samples this week in southern Volusia and central Brevard Counties (10/16, FWRI). Multiple reports of fish kills and respiratory irritation have been received from St. Johns County to northern Volusia County over the past few days. Chlorophyll levels remain high along the coast as far south as 29°5'43"N 80°53'3"W, based on satellite imagery from 10/15. Offshore winds for most of the weekend will likely decrease impacts along the coast through Sunday. Slight northerly transport of the bloom is possible through Sunday.

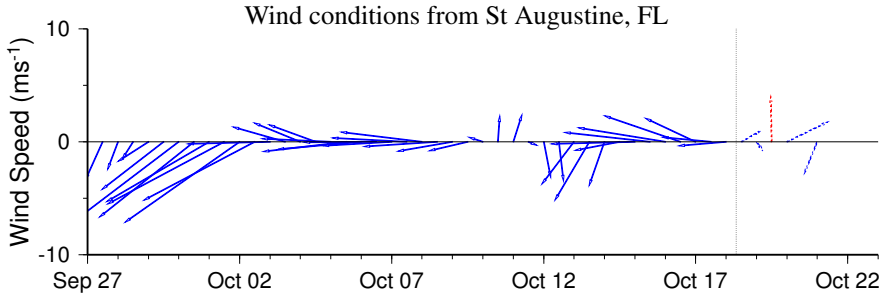
SW Florida: Harmful algae has been identified in Collier County. Background to very low concentrations were identified in samples collected at Barefoot Beach and Clam Pass (10/15, FWRI). No reports of fish kills or respiratory irritation have been received. This is likely associated with the feature previously identified as a high chlorophyll patch offshore Lee and Collier Counties. Based on satellite imagery from 10/13, the region of high chlorophyll (>10μg/L) off Collier County was centered at 26°12'12"N 82°0'35"W. The region of elevated chlorophyll offshore Sanibel Island was centered at 26°30'21"N 82°15'24"W. It is very likely that *K. brevis* may be found within these features. Offshore surface and subsurface sampling is recommended.

* Due to technical difficulties, the inset shown on Page 2 does not currently reflect all areas of high chlorophyll concentration. *

- Allen, Fisher



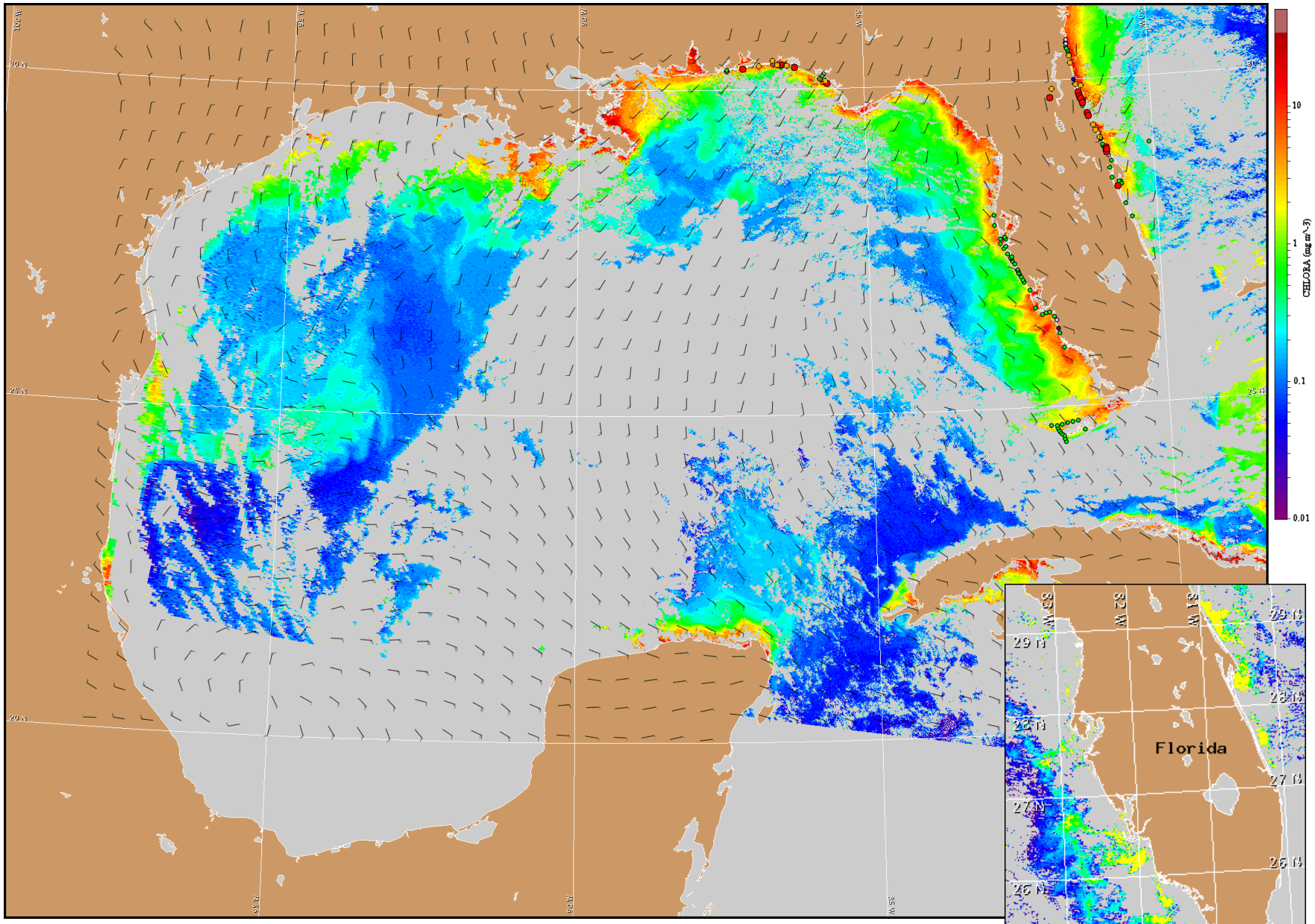
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 8 to 17 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:
http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

NE Florida: Southwesterly winds today at 5-10 knots (3-5 m/s) becoming south to southwest tonight and tomorrow. Westerly winds Saturday becoming easterly by Saturday night and southeasterly on Sunday.

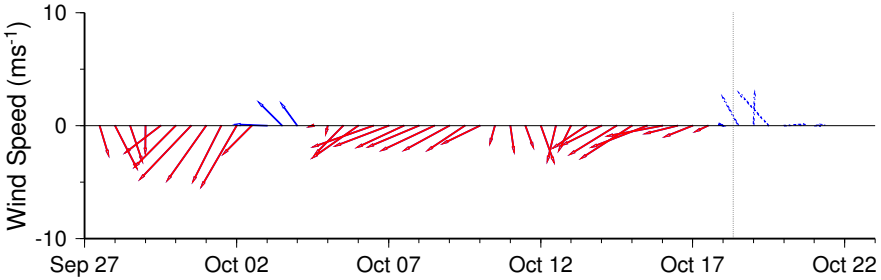
SW Florida: Southerly winds today at 5-10 knots (3-5 m/s) becoming southeasterly tonight and southerly on Friday. Variable winds Saturday becoming easterly on Sunday.



Satellite chlorophyll image and forecast winds for October 19, 2007 12Z with Cell concentration sampling data from October 8 to 17 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf

Verifi ed and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Venice Pier, FL



Wind conditions from Naples, FL